

## The value of a training certificate

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**C**hanging technologies, increased global competition and constant pressure to "do more with less," require employers to continue educating their employees. Therefore, many companies enroll their employees in training programs. Some programs, called certification training programs, issue certificates to students upon successful course completion. One must be aware of two pitfalls in selecting a certification training program. First, the content of these programs varies widely. Different training organizations emphasize or omit subjects for many reasons. Second, though acquiring knowledge can lead to improved skill, most training programs impart only knowledge to their students. Skill takes much more time and effort to acquire.

### Program content

Training program content varies for many reasons, including time, money, equipment and organizational bias. A history course might omit a period of history because the semester is too short to include it. A trade school might teach the use of a particular piece of test equipment because it has several available. A university might continue teaching an archaic programming language because the teachers are familiar with it. Likewise, a course might emphasize the analysis of certain plots because the instructors are familiar with them, or the use of certain equipment because that equipment is available.

### Knowledge and skill

Knowledge is awareness of certain facts and principles; skill is the ability to

actually perform a task. The two are not separate; a continuum exists between the two. Practice is the difference between knowledge and skill.

For instance, in school a technician might learn mechanical or electrical principles and how to use measuring devices. When he is hired on a job, his employer will teach him how to apply this knowledge in the new workplace. He works closely with more experienced employees and practices under their guidance. Over time, he gains the skill to perform on his own. Likewise, school might teach an engineer the general properties of materials and devices; on the job practice gives him skill in their particular applications.

Most employers who hire school graduates don't assume a diploma attests to any more than a successful study of the subject. They presume that the graduate has a sound base of knowledge that can be developed into skills. However, the same employer might be convinced that, after completing a week-long product training course, the graduate has proven skill he can apply immediately on the job. Perhaps he has the skill, perhaps not. Only on-the-job performance will verify it.

### What does a test verify?

A training program tests the student on whatever subjects the instructors feel are important. The training organization has wide latitude to decide what constitutes acceptable performance. Be aware that what the training organization chooses to test may not be what the student needs to know to perform on the job.

Knowledge is relatively easy to test; testing a skill is much more difficult. Knowledge can be proven by a written test or by repetition of an exercise under critical examination. The student can

prove skill only by performing on his job site.

### Selecting a certification training program

Because technology and knowledge evolve rapidly, look for a program that teaches the latest, proven concepts. Select a program that teaches a range of approaches to problem solving and gives the students as much practice time as possible. Look for a program that gives students access to many instruments. Most importantly, don't assume that, upon completion of a written test, a student has proven he has skill. It is not impossible that he will; however, skill can only be proven on the job site.

### Bently Nevada Training Programs

For over twenty-five years, Bently Nevada has held technical training courses around the world. We have graduates at work in all industries. We have studied work requirements in these industries, and have designed our certification training programs accordingly.

Our courses incorporate the latest research, because we know how rapidly technology has changed. Our own Bently Rotor Dynamics Research Corporation (BRDRC) scientists and engineers have driven much of this change, through their research and development. Our training program developers work closely with BRDRC to incorporate new technologies and methodologies in our courses.

Our instructors are professionals with practical field experience in the topics they teach. That is why our classes never venture far into the abstract. Our instructors emphasize what is important on the job, so students learn how to

efficiently and effectively solve problems on the job.

Our classrooms contain a wide variety of the latest equipment. Students have an opportunity to compare different types of equipment to learn their capabilities. We teach students the circumstances and reasons why some equipment is preferred over others.

In our experience, nothing helps a student retain knowledge like hands-on practice. All Bently Nevada training courses are designed so students spend **at least 50% of their time in hands-on practice** with real equipment. As so much of our course time is devoted to hands-on practice, our students leave perhaps farther along the continuum towards skill than graduates of other courses. However, we will not certify that a student has the skill to perform on the job unless we can test him under those conditions.

A student at a Bently Nevada training course is tested at the conclusion of the course. If the student successfully passes the exam, we will certify that he has met the course objectives. Through this process, the student begins to acquire the skills necessary for on-the-job certification. However, we can verify his skill only through observation of his work on the job.

As the most respected company in the field of vibration analysis, we will not mislead our students. Before we will verify that a student has skill, he must prove he has acquired knowledge through our training course, and can practice and prove himself on his own job site. We do not take certification lightly.

### Conclusion

As an informed purchaser of training, you must decide to what level you want your employees to be certified. There may be times when a proven knowledge is all that is required. However, don't assume that knowledge translates to proven skills. Use this guideline: knowledge can be tested at any time; only repeated practice with that knowledge will produce a skill. Bently Nevada is available to meet your certification needs in our training courses or on-the-job. ■